



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,536	11/25/2003	Hajime Suda	008312-0306943	4402

909 7590 01/18/2007
PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

CONNOLLY, MARK A

ART UNIT	PAPER NUMBER
----------	--------------

2115

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/720,536

Applicant(s)

SUDA ET AL.

Examiner

Mark Connolly

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 and 11-14 is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/25/03 & 2/13/06.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-14 have been presented for examination.

Claim Objections

2. Claim 1 is objected to because of the following informalities: Claim 1 is grammatically incorrect. On lines 12 and 13 of the claim, please correct "request of updating of the firmware;" to "request for updating the firmware;". In addition, on lines 17 and 18 of the claim, please correct "a request of transmitting" to "a request for transmitting". Appropriate correction is required.
3. Claim 4 is objected to because of the following informalities: Claim 4 is grammatically incorrect. On lines 12 and 13 of the claim, please correct "request of update page data;" to "request to update page data;". On lines 17 and 18 of the claim, please correct "include a request of transmitting" to "including a request for transmitting". On lines 25-26 of the claim, please correct "request of updating of the firmware;" to "request for updating the firmware;". Finally on lines 30-31 of the claim, please correct "request of transmitting" to "request for transmitting". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art [AAPA] in view of Ziese US Pat No 6484315.

Art Unit: 2115

6. Referring to claim 8, the AAPA teaches a method for updating firmware on a recording/reproducing apparatus configured to record information in a recording medium and reproduce the information from the recording medium based on firmware [page 1 line 25 – page 2 line 12]. Firmware, inherently by definition, is software for controlling hardware, which thus controls the recording/reproducing apparatus.

Although the AAPA teaches updating firmware on a recording/reproducing apparatus, it is not explicitly taught:

- a. receiving first information from a network, the first information being information requesting updating of the firmware;
- b. outputting second information to the network in response to reception of the first information, the second information being information requesting third information used for updating the firmware; and
- c. acquiring the third information from the network.

Ziese teaches:

- d. receiving first information from a network, the first information being information requesting an update [col. 8 line 10].
- e. outputting second information to the network in response to reception of the first information, the second information being information requesting third information used for the update [col. 8 lines 11-14].
- f. acquiring the third information from the network [col. 8 lines 15-17].

In summary, Ziese teaches a server which, when a new update is available, broadcasts an update message requesting any devices not up-to-date, to perform an update. When the server

Art Unit: 2115

receives an update request response from a device, the update is then sent to the requesting device to be installed. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the AAPA to incorporate the update method taught by Ziese because it would provide a convenient automated update means requiring no operator interaction as suggested by Ziese [col. 2 lines 37-44].

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Ziese as applied to claim 8 above, and further in view of Tanenbaum, Computer Networks.

8. Referring to claim 9, although the AAPA and Ziese teach requesting an update from the server in response to receiving an update request from the server, it is not explicitly taught to add specific information to the update request to the server. In particular, the AAPA-Ziese system does not teach adding specific information into the request from the recording/reproducing apparatus to the server. Ziese does suggest encrypting the downloaded update and decrypting the update at the host in order to prevent tempering with the update but is not explicit as to how encryption/decryption should be performed. Tanenbaum teaches a very well known and effective means to encrypt/decrypt data over a network called RSA encryption [pages 598-599]. With RSA encryption, an encryption key is generated at a host which is used by other computers to encrypt data being sent to the host. Once the data has been received, the host uses two numbers (used to generate the encryption key) to decrypt the data. It would have been obvious to include the RSA encryption means into the AAPA-Ziese system because it provides an effective way to ensure the received firmware update is authentic and not tampered with. In addition, since the encryption key is generated at the host (interpreted as the

Art Unit: 2115

recording/reproducing apparatus), it is obvious that the encryption key would be sent to the server providing from the recording/reproducing apparatus so that the update can be encrypted. It would have been further obvious to send the encryption key along with the firmware update request so that when the request is received by the update server, the encryption key would be immediately available for use in encrypting the firmware update.

9. Referring to claim 10, Tanenbaum teaches that when sending data across a network, the data is sent in frames. Upon reception of each frame, an acknowledge frame is sent back by the receiver [page 30]. This ensures that the receiving device will receive any lost frames by retransmitting the lost frames.

Allowable Subject Matter

10. Claims 1-7 and 11-14 are allowed.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2115

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Connolly
Examiner
Art Unit 2115

mc
January 8, 2007

